

IN THE CLAIMS:

The status and content of each claim follows.

1. (previously presented) A client-side auto-rediscovery system, comprising:  
a data store associated with a service requesting networked device configured to store a pairing data that relates said service requesting networked device and a service providing networked device; and  
a logic associated with said service requesting networked device configured to, in response to said service requesting device sending a service request to said service providing networked device, determine whether the pairing data should be updated and to update the pairing data if said pairing data is not valid.
2. (original) The system of claim 1, where the data store comprises one or more of, a file, a memory, and a register.
3. (original) The system of claim 2, where the pairing data comprises one or more of, an IP address, a unique hardware identifier, a unique software identifier, a virtual identifier, and a dynamic Identifier.
4. (original) The system of claim 3, where the unique hardware identifier comprises one or more of, a media access control (MAC) address, a globally unique identifier (GUIO), an object identifier (OID), and an IP address.

5. (original) The system of claim 4, where the service requesting networked device comprises one of, a computer, a printer, a scanner, and a server.
6. (original) The system of claim 5, where the service providing networked device comprises one of, a computer, a printer, a scanner, and a server.
7. (previously presented) The system of claim 6, wherein, to determine whether to update said pairing data, the logic is further configured to generate a uni-cast simple network management protocol (SNMP) GET message to be delivered from the service requesting networked device to the service providing networked device and to compare data within a response to said GET message with said pairing data.
8. (previously presented) The system of claim 7, wherein, to update said pairing data, the logic is further configured to selectively generate a multicast SNMP GET message to be delivered to a plurality of service providing networked devices to request a binding data that facilitates updating the pairing data.
9. (original) The system of claim 8, where the binding data comprises one or more of, a MAC address, a GUID, an OID, an IP address, and a virtual name.
10. (previously presented) A client-side auto-rediscovery system, comprising:
  - a data store configured to store an Internet protocol (IP) address and a MAC address associated with a service providing networked device that is configured to provide a service

to a requesting networked device, the data store being located in the requesting networked device;

a first logic configured to, in response to a service request made by said requesting networked device, produce a uni-cast SNMP GET request for the MAC address of the service providing networked device and to determine whether the IP address and MAC address stored in the data store describe a valid pairing based on a uni-cast SNMP GET RESPONSE message, the first logic being located in the requesting networked device; and

a second logic configured to selectively produce a multicast SNMP GET request for the MAC address of one or more service providing networked devices related to said service request and to selectively update the data store based on one or more uni-cast SNMP GET RESPONSE messages responsive to the multicast SNMP GET request, the second logic being located in the requesting networked device.

11. (original) The system of claim 10, where the data store comprises an extensible markup language (XML) file.

12. (previously presented) A client-side auto-rediscovery system, comprising:

means for storing a pairing data that relates a service requesting networked device and a service providing networked device;

means for performing a unicast based discovery between the service requesting networked device and the service providing networked device in response to a service request made from the service requesting networked device to the service providing networked device; and

means for selectively performing automatic multicast based discovery to rediscover the service providing networked device based on the unicast based discovery and selectively updating the pairing data based on the multicast based discovery.

13. (previously presented) A client-side auto-rediscovery method, comprising:

determining whether a service request from a first networked device to a second networked device has been made; and

in response to a service request being made, performing a process that facilitates relating the first networked device and the second networked device by:

selectively requesting from one or more networked devices a binding data that facilitates uniquely identifying a networked device;

receiving, in response to requesting the binding data, a message that includes the binding data; and

selectively updating a pairing data that relates the first networked device and the second networked device based, at least in part, on the binding data.

14. (original) The method of claim 13, where determining whether to perform the process is performed periodically.

15. (previously presented) The method of claim 13, wherein said service request is unrelated to said process.

16. (original) The method of claim 13, where determining whether to perform the process includes requesting the binding data from the second networked device via a unicast message.

17. (original) The method of claim 16, where the uni-cast message comprises an SNMP GET request.
18. (original) The method of claim 17, where the binding data comprises one or more of, a MAC address, an OID, a GUID, an IP address, and a virtual name.
19. (original) The method of claim 13, where the binding data is requested in one or more of, a broadcast message, a multicast message, and a uni-cast message.
20. (original) The method of claim 19, where one or more of, the broadcast message, the multicast message, and the uni-cast message comprise one or more of, an SNMP GET request, and an SLP request.
21. (original) The method of claim 20, where the binding data comprises one or more of a MAC address, an OID, a GUID, an IP address, and a virtual name.
22. (original) The method of claim 21, where the binding data is received in a second unicast message.
23. (original) The method of claim 22, where the second uni-cast message comprises one or more of, an SNMP GET RESPONSE message, and an SLP message.

24. (original) The method of claim 13, where the pairing data includes one or more of, an IP address, a MAC address, an OID, a GUID, and a virtual name.

25. (original) The method of claim 13, where the process is performed by a device driver.

26. (previously presented) A computer-readable medium providing processor executable instructions operable to perform a client-side auto-rediscovery method, the method comprising:

in response to determining that a service request has been made by a service requesting device;

with the service requesting device, selectively requesting from one or more networked devices a binding data that facilitates uniquely identifying a networked device;

with the service requesting device, receiving, in response to requesting the binding data, a message that includes the binding data;

with the service requesting device, selectively updating a pairing data that relates the first networked device and, the second networked device based, at least in part, on the binding data; and

with the service requesting device, storing the pairing data in a computer memory.

27. (original) The computer-readable medium of claim 26, where the computer-readable medium comprises a compact disk.

28. (cancelled)

29. (original) The computer-readable medium of claim 26, where the computer-readable medium comprises a memory.

30. (previously presented) A client-side auto-rediscovery method, comprising:

determining, in response to a service request made from a first networked device to a second networked device, whether to perform a process on behalf of said first networked device by requesting a MAC address from said second networked device, where the MAC address facilitates binding the first networked device and the second networked device;

selectively requesting a MAC address from one or more networked devices, where the MAC address facilitates re-binding the first networked device and the second networked device, where the request is transmitted in an SNMP GET message via one or more of a multicast and broadcast mode;

receiving the MAC address in a uni-cast SNMP GET RESPONSE message; and

selectively updating an IP address, MAC address pair stored on the first networked device to bind the first networked device and the second networked device.

31. (original) A client-side auto-rediscovery method, comprising:

discovering a first connection to a service providing networked device;

client-side associating a stored connection between a service requesting networked device and the service providing networked device based, at least in part, on the first connection;

upon the service requesting networked device making a request for a service from the service providing networked device, validating the stored connection;

selectively re-discovering a second connection to the service providing networked device; and

selectively client-side re-associating the stored connection based, at least in part, on the second connection.

32. (original) The method of claim 31, where discovering the first connection comprises sending one or more of, a broadcast message and a multicast message by one or more of, an SNMP message and an SLP message to one or more service providing networked devices.

33. (original) The method of claim 32, where client-side associating the stored connection comprises storing one or more of, a unique hardware identifier, a unique software identifier, a virtual identifier, a dynamic identifier, and a uni-cast IP address associated with the service providing networked device.

34. (original) The method of claim 33, where validating the stored connection to the service providing networked device comprises sending a uni-cast SNMP GET message to the service providing networked device.

35. (original) The method of claim 34, where selectively re-discovering the second connection comprises sending one or more of, a broadcast message and a multicast message by one or more of, an SNMP message and an SLP message to one or more service providing networked devices.



36. (original) The method of claim 35, where client-side re-associating the stored connection comprises updating a pairing table.